

Claims

What is claimed is:

- 5 1. A distributed IP library management system for supporting users on a plurality of
local area networks coupled through a wide area network, comprising:
 - a master IP database for storing virtual component data;
 - a master IP database server on a first local area network coupled to the master IP
database;
 - 10 an IP catalog database for storing attributes pertaining to the virtual component
data;
 - an IP catalog database server on the first local area network coupled to the IP
catalog database;
 - an IP registration system for testing the quality of and controlling the of
15 registration of new or modified virtual component data;
 - an IP data management system for controlling: a)whether a user may access the
master IP database and the IP catalog database, b)setup and maintenance of the master IP
database and c)updating the master IP database upon registration of virtual component data;
 - an IP selection system for browsing the IP catalog database with a query engine
20 and accessing selected virtual component data from the master IP database;
 - an IP catalog management system for setting up the IP catalog database and for
updating the IP catalog database; and

an IP modification management system for managing the reporting and tracking of errors detected in the virtual component data,

wherein user terminals on a given local area network couple to the IP library management system through a user interface server on the given local area network.

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2. The IP library management system of claim 1, wherein the wide area network is the Internet.

3. The IP library management system of claim 2, wherein the user interface server in any given local area network other than the first local area network couples to a local database server on the given local area network, the local database server coupled to a cached local IP database, and wherein the user interface server on the first local area network couples to the master database server.

15 4. The IP library management system of claim 3, wherein the IP registration system tests the quality of new or modified virtual component data according to VSIA standards.

5. The IP library management system of claim 4, wherein the IP catalog database is a relational database and the query engine uses SQL commands.

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6. The IP library management system of claim 5, wherein the IP master database and the IP catalog database are each stored in a Redundant Array of Independent Disks and the IP catalog database server is a cluster server.